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Announcing the Department of Energy's FY 2007 Budget Request

Press Briefing by Secretary of Energy Samuel W. Bodman

SECRETARY SAMUEL W. BODMAN: I'm Sam Bodman, the Secretary of Energy. I'm very pleased to present a few highlights from the 2007 Department of Energy budget request that the president has decided on.

This is a very exciting time for this department. What you will see is, I think, some significant directional changes in the management of this department.

There are two initiatives that the president announced in the State of the Union that will be absolutely critical to the future of this department. First is the American Competitiveness Initiative. In that initiative, the president committed to doubling the budget of the combined offices of the Department of the Energy's Science Office, the National Science Foundation, and the National Institute of Standards and Technology over the next ten years.

This will -- in our case is manifested in a request for an additional half a billion dollars in the Office of Science for the fiscal year 2007 on a base of 3.5 billion, so it's a significant percentage increase, and this is – all of this is directed in each of these three areas to the efforts in supporting research in the physical sciences, which has lagged well behind the enormous growth that we've seen, appropriately, in the life sciences.

To support this initiative, we are certain that America will remain at the forefront in a very – in an increasingly competitive world, we will be seeking – as my friend, Ray Orbach, likes to talk about it – transformational new technologies, and we will be operating at the cutting edge of a number of fields in the physical sciences. I'll talk more about that in a minute. The research also will help develop new clean, affordable sources of energy and that will someday change the way we power our homes and our automobiles, and will help substantially reduce America's dependence on foreign energy sources.

The president also announced the new Advanced Energy Initiative and is providing a 22 percent increase in spending on clean energy sources, particularly including solar and biomass energy that will serve, I believe, to transform our transportation sector; in fact, really will affect our entire economy.

As a part of the Advanced Energy Initiative, today our administration is launching a new international effort that we call the Global Nuclear Energy Partnership, or GNEP. This is a partnership that will help meet the world's growing electricity needs with safe, emissions-free nuclear power.

As you know, we will further address GNEP in a separate session following this one. These initiatives are all closely related and they demonstrate just how science and technology are essential to helping us address the challenges of this next century.

Let me just speak to some of the material that's on the slides that have been prepared for you. First – on the first slide, the guiding principles, we will be working on advancing our national security by maintaining a reliable nuclear deterrent that's responsive to the threats of this 21st century, and supporting the global partnership against the spread of WMD. We are advancing crucial research in proliferation detection as well.

We'll also be reducing dependence on foreign oil by accelerating the expansion of nuclear power, by emphasizing the potential of U.S. coal reserves, and by increasing investments in bio-fuels and solar research that I just mentioned.

We'll be increasing our economic competitiveness by investing in the American competitiveness initiative and driving the economic strength and growth through scientific research. If we look back on the last 50 years, it is clear that the – one overriding factor that has really stimulated the enormous economic growth in our country has been the scientific research, particularly that in the physical sciences, that started in the '50s and '60s and continued on to the present time.

We'll be honoring our commitments. We're working on – these last two items really have to do with the internal management of this department, and we're continuing to hold ourselves accountable at a very high level to honoring our commitments and managing the affairs of the department well.

If you look at the budget, it's essentially flat year to year on dollars of the year – 23.6 versus 23.6. The breakdown, however, sees a modest growth in the energy and environment from 9.2 to 9.9. The science you see increasing from 3.6 to 4.1, and the national security efforts from 9.1 to 9.3. So we are I think starting to see the focus here in terms of the support of the sciences; the focus on non-proliferation, which is the primary reason for the increase in our national security budget, and so those are the – as we start to see the directions we're moving in.

On the next slide, the budget is broken down in greater detail. I believe this budget represents a balanced program. I have challenged the department to identify areas that are best positioned to yield results in our lifetime; more specifically, in my lifetime -- (chuckles) -- and that we can start to see the kind of results that over, let's say, the next 20 years, what can we see coming out of this. The programs have been very responsive, and they've had to make some very tough choices as we have done our work. The budget includes new initiatives that cause us to rethink energy diversification as well as how we deal with the threat of nuclear proliferation.

At the same time, we are very committed to honoring our commitments on site closures and the nuclear waste repository at Yucca Mountain. I'll cover some of these next.

Looking at the initiatives, first the competitiveness initiative shows the – that's the half a billion dollars that I mentioned before and is a part of the president's commitment to double the research in the physical sciences represented in those three agencies that I mentioned.

Second is GNEP, with $250 million investment. That will respond to the challenges of global terrorism. This is an initiative that we will – as I said before, we will be covering in greater depth at a subsequent meeting with the press, but briefly stated, this is a technical initiative to take laboratory data that has been already developed on the separation and management of spent fuel to separate the plutonium and actonites from that to produce a material that is not useful for nuclear weapons but is

useful for generating energy; and then to, secondly, design a so-called fast reactor that allows a nuclear reactor to manage that – to use that kind of fuel and to produce energy to that it will be, we think, something very exciting.

And then the energy diversification efforts, which are – with this caveat of having something that has got a 20-year result that will be forthcoming. The – first the solar energy, with a $65 million increase; the biomass, which will have a similar $59 million increase up to a level of $150 million. Those are two very significant increases in areas that have been relatively stable in years past, and this is meant to stimulate even more rapid development there.

The hydrogen fuel initiative is part of the president's commitment in his 2003 State of the Union address, which seeks to develop the hydrogen fuel cell for use in propelling an automobile; and then the FutureGen program, which we have announced a private corporate alliance that will be working on that with us in partnership; and then the Nuclear Power 2010, which is the effort to generate the siting and licensing of new nuclear facilities – commercial nuclear facilities in this country for the first time in over 30 years.

A few comments on the interests of scientific discoveries on the next slide. We have enormous opportunities in the six areas that are listed there: biotechnology, nanotechnology, material science, fusion energy, high-intensity light sources, and high-speed computing. All of these are areas in which we've already devoted time and effort, and we will – with this increase in the investment, this will really be I think a clarion call to the world that America means to retain our position of leadership in research and development and benefit from the economic fallout from that that we have enjoyed over the past five or six decades. It will require significant investment, but we stand ready to put that to work. Our office of science is responsible for ten world-class U.S. national laboratories, and they are the primary builder and operator of large-scale scientific facilities in this country, and they are responsible for providing the support and the equipment for the education and the training of our next generation of scientists and engineers.

I feel strongly about this, frankly, because I'm a product of the last major effort in this area, which occurred before most of you were alive, I guess – the so-called Sputnik years in which the Russians challenged the technical leadership of this country, and as a part of that response, we saw the enormous growth in the National Science Foundation, which helped educate me many years ago.

There's a slide here on the Global Nuclear Energy Partnership where we have the $250 million. That's a follow-on from the Advanced Fuel Cycle Initiative you'll see there at the DOE program down at the bottom of that first box – the AFCI. That's the Advanced Fuel Cycle Initiative, and is the process that will first separate out the combination of plutonium and the actonites and produce a fuel, and then use that material in a new fast reactor. The 2010 – Nuclear Power 2010 Initiative is also listed there for completeness, and I've already touched on that.

The management – or the office responsible for radioactive waste, which oversees our Yucca Mountain activities, will also obviously be deeply involved in this. By using this technique, the ultimate waste that is produced out of our commercial nuclear activities will be substantially reduced in toxicity and somewhat reduced in volume, and so it's – it will allow us to make much better use of a facility, like a Yucca Mountain facility, in the absence of the – this kind of an initiative. Yucca Mountain is basically full today because of the substantial quantities of spent waste that exist around our country.

And then lastly mentioned here is the NNSA – the Office of Nuclear Non-Proliferation, where they are very active in working with our international partners in developing a variety of programs to minimize the possibilities of proliferators.

A slide on our – honoring our commitments – you'll see noted there is the – first the weapons activities, which is part of – our client there is the Department of Defense, and that it will fulfill our requirements and is in line with the president's nuclear posture review. The defense nuclear non-proliferation efforts there will accelerate efforts to secure nuclear material here, in the Soviet Union, and in other countries around the world. We'll be working on closing sites in the environmental area and completing cleanup. The civilian radioactive waste management efforts will, I believe, overcome impediments through a new and more simplified approach as well as planned legislation.

And then legacy management, there is a significant increase there, and that's that we're moving a number of sites that have been cleaned up, and they've moved off the roles of responsibility of environmental management and they will be looked after by the Legacy Management Office here in the department.

And then lastly, the president's management agenda has been really the basis of which we've gone forward with this whole program. This department has done quite well when looked at on the so-called scorecard that OMB puts out. We're looking, frankly, to get even beyond that. I think there are things that we can do in managing our human capital that are even more effective. We, like many parts of the government, have got to worry. We've got a lot of people approaching retirement age and we've got to find ways of getting successors in place. We'll also have institutionalized here in the department multiyear planning, rather than just looking at it on a year-by-year basis but looking out over five years, and then focusing as well on better business practices. And this is an area, frankly, where we have been less effective over the past few years than I would like to see us, and this is really in the area of project management that we are getting better at and will continue to make progress so that we can start bringing some of these projects in place – bringing them to life on schedule and on cost. And we've had a real problem with that in a number of instances.

With that, I would be happy to take questions. And feel free to call on my colleagues over here if the questions get too tough. Yes, sir.

Q: Hi, Dan Horner from McGraw-Hill Nuclear Publications. You mentioned project management. I wanted to ask about the MOX fuel fabrication facility because that seems to account for most of the increase in the security budget. Last year in the budget request you cited some dissatisfaction with the contractor, DCS, and a GAO report subsequently also described that in some detail. So with that background, how come – what is the reason for asking for such a large increase in the program? Does that indicate that you're now satisfied with the work the contractor is doing on it?

MR. BODMAN: Well, on MOX – this is on the MOX project, correct?

Q: Yes.

MR. BODMAN: The big issue on MOX has been getting a resolution with the Russians on the liability question, and we have wrestled long and hard with that. We finally have reached agreement – although we continue to wait for final written approval from the Russians but they keep telling us that this is a normal – we're experiencing normal delays. So we have – we are making provisions to go forward with it and we're comfortable that we know what we're doing.

Linton, do you want to add to that in any way?

LINTON BROOKS: I'm Linton Brooks from NNSA. We are in the process of addressing the GAO concerns, which I don't believe invalidate the project. The funding increase is because this is the year to

peak fund it and we expect to be in a position to start construction later this calendar year. The delays in the past have not been because of management, although there have been some management problems we're correcting, but as the secretary said, because of work with our colleagues in the Russian Federation.

Q: Are all the problems with the Russians resolved now to the best of your – (inaudible)?

MR. BROOKS: The problems with liability are resolved.

Q: Are there any others?

MR. BROOKS: There are always – this is a very complex, large project. There are always areas to discuss.

Q: And I'm sorry – if I could, on the weapons side, will you get money in this budget for the bunker busters? People like the subject.

(Laughter.)

MR. BODMAN: The agreement is that this will be funded in the Department of Defense, and they have received an appropriate for it and they will presumably be continuing to do that. But it will not be done here; it'll be in the Defense Department.

Yes, sir.

Q: Tom Doggett with Reuters. Mr. Secretary, why is the budget for the Strategic Petroleum Reserve cut when the new energy law requires you to begin the process of expanding that stockpile to a billion barrels?

MR. BODMAN: Yeah, I think it's merely a matter of trying to stage the funding with the need for the funding. So we are obliged to do the homework and to complete the analysis and the program for that. And so we're – the request is meant to fully fund whatever the requirements are for an increase in the Strategic Petroleum Reserve, if that's something that is decided that we should do, but we decided not to ask for the money because we haven't finished the design yet. We don't know where it is and don't have a specific program around which we can build a reliable estimate.

Q: You're supposed to make a decision on the new reserve sites I believe in August –

MR. BODMAN: That's correct.

Q: – but this budget is for after that.

MR. BODMAN: That's correct.

Q: If there is no money to buy oil, can one assume that whatever oil is going to be going into the reserve to expand it to a billion will be all royalty in kind, or mostly? You're not going to be –

MR. BODMAN: I would expect that it would be – as it has been in the past, it would royalty in kind.

Yes?

Q: Last year Congress appropriated nearly $50 million to the waste program to look at the – to start competition for a recycling site, or a reprocessing site. I noticed in the budget breakdown on the integrated fuel recycling effort is part of the Yucca Mountain Project. It says the department is analyzing whether it has the authority to proceed on that and isn't requesting any funds for that in FY '07. Does that mean that that effort is at a standstill?

MR. BODMAN: I thought I was clear; perhaps I wasn't. That is part of the Advanced Fuel Cycle Initiative, and that in turn has been combined with the Global Nuclear Energy Partnership. And so this is intended – this partnership is intended to analyze and develop an engineering scale model for the separation of plutonium and the actinides, on the one hand, and to complete research and develop an engineering scale for using that fuel in a so-called fast reactor. That's the goal.

Q: If I might have a follow up. Because of that new nuclear initiative, the Nuclear Energy Partnership –

MR. BODMAN: Right.

Q: – and the tie to the Yucca Mountain project.

MR. BODMAN: Right.

Q: How is that – or is that going to affect the pace at which the department proceeds on the pre-licensing work and the preparations of a license application?

MR. BODMAN: For –

Q: For Yucca Mountain.

MR. BODMAN: For Yucca Mountain? No. We're continuing on as a – we are quite committed to Yucca Mountain. We're going to continue on the same pace as indicated before.

Yes, sir?

Q: Matt Wald – The Times. Given that it will take many years, if ever, to get an actinide fuel recycle program going, and that Yucca slips farther into the future ever month, are you now, or do you anticipate, looking for someplace to store nuclear waste at a federal facility so that as reactors close down we don't end up with these isolated spent-fuel storage installations?

MR. BODMAN: We have not – our first focus, Matt, as I indicated, is to develop the process for the recovery and recycling the spent fuel materials that will be useful for creating energy, and then, secondly, develop the technology for the fast reactor. We have not confronted the issue of separate storage, and it's not something that's the focus of what we're focusing on here. I mean, the goal here is to try to do this as inexpensively as possible. And that's why the idea of working with other countries is a very important part of it.

And so this will be an international effort the way – we hope that there will be a good response to this initiative internationally, and so we have started the process of reaching out.

Clay, are you there? Maybe you could comment, if you would, on the international aspects of this. This is Clay Sell, who is the Deputy Secretary.

CLAY SELL: I can, or we will elaborate on it in the next session. So that may be the best way to

handle it. We have had substantial international collaborations on this and certainly, to the extent – to your question on does this – to the extent your question went to does this delay our commitment or our desire to move spent fuel to Yucca Mountain as quickly as possible, it does not. And getting Yucca Mountain licensed, getting it open and getting spent fuel moved is critical, we think, to the nuclear renaissance which we are on the cusp of in this country, and that remains a key priority of this department and this administration.

MR. BODMAN: Yes, sir.

Q: (Inaudible.) You spoke of wanting to focus on technologies that will show result within our lifetime. Does this reflect a diminished enthusiasm for a hydrogen economy within, I think you said, 20 years?

MR. BODMAN: No, I think the – no, the original goal on the hydrogen economy, which we continue to subscribe to, would be to complete the research work and the development work in the next nine or 10 years that would put us roughly at 2015 and give the industry five years to commercialize it. So that's the goal. And the idea is that we would start to see the deployment of hydrogen fuel technology in the automotive industry starting in roughly 2020, so that it gives them five years to get it geared up.

Q: Could I ask a follow up?

MR. BODMAN: Sure.

Q: The automakers have – they've spoken about not wanting to spend too much research money on other – focus it on hydrogen fuel-cell vehicles with the new initiative from the department on biofuels and on plug-in hybrids. Will they be able to continue funding their fuel-cell research at the same level that will be needed for a 20-year deployment?

MR. BODMAN: I'll ask Dave Garman in a minute to talk about it. We do have partnerships with the automotive industry that we continue to work on, and I would expect that they would continue to participate in that. This is not meant to be – to exclude one approach over others. It is, however, meant to indicate, where we think we have the possibility of significant improvements in ethanol manufacturing, for example, to go ahead and try to accelerate that, or in solar energy, to go ahead and accelerate that.

Dave Garman, perhaps you could comment on that further.

DAVE GARMAN: Certainly, and I think the secretary has really said it well. We're trying to generate as many options as we can to meet the president's goal to displace oil. The automakers, in terms of incorporating new flexible fuel vehicles, don't have insurmountable technical obstacles to overcome. General Motors will be offering 500,000 flex-fuel vehicles next year; Ford, 250,000. E85, 85 percent ethanol blends, is well understood and used today in millions of vehicles.

The interest in cellulosic ethanol has been – in large part because of the research of the last few years we have been able to bring cellulosic ethanol, the price of that, down substantially, and that, for the first time, gives us a look at a new opportunity of displacing much larger amounts of oil with cellulosic ethanol than was possible with corn-based ethanol. And I think that's why you see this initiative at this point.

MR. BODMAN: I think I see a hand back there. Yes?

Q: Hi. Ben Evans with CQ. The president has talked a lot about increasing funding for renewable energy and energy efficiency programs, but if you look at that office's budget, essentially it's flat and there's cuts into a lot of areas – geothermal, industrial technologies, a lot of the weatherization programs. Could you explain why those choices were made?

MR. BODMAN: We've made the choices for reasons that we believe are parallel with what I have just said. We believe that we can more effectively put money to work in developing the cellulosic-based ethanol program, for example, or solar energy, than in working on geothermal programs, which is research that has been done in the past. And that doesn't mean that it's not a valuable source of energy or it's not something that can't be pursued; it's just that we don't feel that we should be putting research dollars there that we can more effectively put the research dollars to work in these other areas. And so that was a choice that was made, and I frankly think it was the proper one.

Q: Some might say, I mean, particularly with the weatherization programs cutting some of energy efficiency things, that you're eliminating programs that have been proven successful at reducing energy consumption.

MR. BODMAN: Well, these are tough choices I guess you would say. I think this is – this focus is meant to emphasize the role that this department plays – the crucial role that this department plays in the research and development efforts of this nation. And that's where the focus is and that's where the priority was and is in working through the details of this budget. It's not that some of these other areas don't have supports and don't have advocates, but it was a judgment that was made by the president ultimately that this is where we should focus our limited resources.

Yes, ma'am?

Q: Mary O'Driscoll from Greenwire. Along the same lines, last year you proposed to zero out oil and gas research and development. It came under a lot of fire in Congress and now you're trying to do it again this year. Is there anything that's changed between this year and last year that makes you think that Congress won't reverse what you're trying to do on that front?

MR. BODMAN: Well, we'd hoped that we can work actively with Congress and make the case. I think that – I'm hopeful that with the debate that went on in passing the energy bill, which has occurred in the meantime, that we will find a more responsive eye to that. It is the president's view, one which we in the department subscribe to, that with $60 oil – $65 oil I guess today – that one has difficulty justifying funding research in new methods to find oil. There is plenty of profit margin to pay for whatever research that the private sector wishes to do.

Q: Sir, you have time for one more question. Then we'll have to move on to – (inaudible).

MR. BODMAN: Okay. Yes, sir, back here.

Q: David Kastenbaum, National Public Radio. What's happening with the Reliable Replacement Warhead program this year?

MR. BODMAN: We continue to believe that that's – I'll ask Linton to give you a more detailed answer, but that's something that's very much a part of our thinking and our efforts, and will be a part of our efforts.

Linton, do you want to comment?

Q: How much is it funded for?

MR. BROOKS: The budget this year will have about $27 million for the Reliable Replacement Warhead. Remember, this is research so we don't know that we can do all the things that we hope we can do, but if so, we think that it has a great deal of possibility of improving long-term safety, security, and reliability, and reducing the need for nuclear testing and helping to transform the infrastructure, so we continue to be enthused about the prospect and we're grateful for the strong support we got last year from the Hill, and we'll look forward to it this year.

MR. BODMAN: Thank you all very much.

Location: Washington, D.C.

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